

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (Previously Presented): A process for the preparation of polyisobutene comprising at least 75 mol% of terminal vinylidene groups, wherein isobutene or an isobutene-containing hydrocarbon mixture is polymerized in a liquid phase in the presence of a boron trifluoride complex catalyst having a composition

$$a(\text{BF}_3) : b(\text{Co1}) : c(\text{Co2})$$

wherein

Co1 is at least one tertiary alcohol,

Co2 is at least one compound selected from the group consisting of water, primary alcohols, secondary alcohols, dialkyl ethers, alkanecarboxylic acids and phenols,

the ratio c:b is from 0.9 to 1.8 and

the ratio (b+c):a is from 0.9 to 3.0.

Claim 2 (Previously Presented): A process as claimed in claim 1, wherein said Co1 is tert-butanol.

Claim 3 (Previously Presented): A process as claimed in claim 1, wherein said Co2 is methanol, ethanol, 2-propanol or 2-butanol.

Claim 4 (Previously Presented): A process as claimed in claim 1, wherein said polyisobutene has a number average molecular weight M_n of from 500 to 50 000 Dalton.

Claim 5 (New): A process as claimed in claim 1, wherein said Co1 is 1,1-dimethyl-1-propanol.

Claim 6 (New): A process as claimed in claim 1, wherein 0.5 to 10 mmol of said catalyst, calculated as boron trifluoride, are used per mol of olefin monomers.

Claim 7 (New): A process as claimed in claim 1, wherein polymerization of the isobutene is carried out by a continuous process.

Claim 8 (New): A process as claimed in claim 1, wherein a reactor is used which is selected from the group consisting of a tubular reactor, a tube-bundle reactor and a stirred kettle.

Claim 9 (New): A process as claimed in claim 1, wherein the polymerization is effected in a loop reactor,

wherein said loop reactor is a tubular or tube-bundle reactor with continuous circulation of the reaction medium, wherein a ratio of feed to circulation F/C is in the range of from 1:5 to 1:500 v/v.

Claim 10 (New): A process as claimed in claim 1, wherein the polymerization is carried out at below 0°C.

Claim 11 (New): A process as claimed in claim 1, wherein the polymerization is carried out at from 0.5 to 20 bar (absolute).

Claim 12 (New): A process as claimed in claim 1, wherein the polymerization is carried out under isothermal conditions.

Claim 13 (New): A process as claimed in claim 1, wherein a residence time of the isobutene to be polymerized in the reactor is from 1 to 120 minutes.

Claim 14 (New): A process as claimed in claim 1, wherein the polyisobutenes obtained have a dispersity M_w/M_n of from 1.3 to 5.